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PATENTAttorney Reference Number 4810-58563
Application Number 09/787,962

the format of the pending claims was discussed. Though agreement was not reached on every item discussed, it is believed that this Amendment and Response has been prepared in accordance with the discussion and conclusions reached. Applicants thank Examiner McElwain for her helpful discussion and suggestions.

Response to Restriction Requirement

Applicants thank Examiner McElwain for her reconsideration and withdrawal of the first restriction requirement, dated July 2, 2002. In response to the current requirement, Applicants renew their prior argument that each of the alleged Groups is linked by a single inventive idea (KCS2), and that there would therefore be no undue burden on the Examiner to include all of these alleged Groups in a single search.

To move prosecution on the application forward, however, Applicants herein elect to pursue the claims of Group I without further traverse.

Amendments to the Claims

Claims 1-37 were pending in this application. Claims 15-19, 20-23, 32, and 34-37 are cancelled herein as drawn to non-elected Groups. Applicants expressly reserve the right to pursue protection of any or all of the cancelled claims in a subsequent application.

Claims 1, 4-9, and 11-14 have been amended to insert a SEQ ID NO for the indicated sequence. Support for specifying that the coding sequence of KCS2 begins at position 1046 of SEQ ID NO: 1 can be found in the specification at least at page 5, lines 27-30, and in Figure 1. In addition, claims 1 and 5-7 have been amended to correct an obvious clerical error.

New claims 37 and 38 have been added. Support for these new claims can be found throughout the specification, for instance at least at page 3, lines 11-13.

No new matter is introduced by these amendments. After entry of this amendment, **claims 1-14, 24-31, 33, 37, and 38 are pending in the application.**

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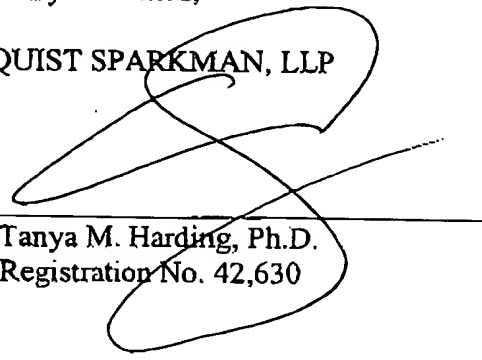
Conclusions

Examiner McElwain is invited to telephone the undersigned if any questions remain concerning the requirement for restriction, or the amendments made herein. Otherwise, the present application is ready for substantive examination, and such action is requested.

Respectfully submitted,

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**Marked-up Version of Amended Claims
Pursuant to 37 C.F.R. §§ 1.121(b)-(c)**

1. (amended) A recombinant nucleic acid molecule comprising a heterologous nucleic acid coding sequence encoding a plant long chain fatty acid condensing enzyme, wherein:

a) the nucleic acid coding sequence is derived from an *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1; or

b) the plant very long chain fatty acid condensing enzyme catalyses the condensation of malonyl-CoA with a C16, C18, C20 or C22 acyl-CoA, wherein the plant very long chain fatty acid condensing enzyme has an amino acid sequence that is at least 70% identical to an *Arabidopsis KCS2* amino acid sequence when optimally aligned; or

c) the nucleic acid coding sequence hybridizes under stringent conditions to a complement of the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1; or

d) the nucleic acid coding sequence is at least 70% identical to the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

2. (amended) The recombinant nucleic acid molecule of claim 1 wherein the nucleic acid coding sequence is derived from the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1.

4. (amended) The recombinant nucleic acid molecule of claim 1 wherein the nucleic acid coding sequence hybridizes under stringent conditions to the complement of the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1.

5. (amended) The recombinant nucleic acid molecule of claim 1 wherein the nucleic acid coding sequence is at least 70% identical to the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

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6. (amended) The recombinant nucleic acid molecule of claim 1 wherein the nucleic acid coding sequence is at least 90% identical to a wild-type *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

7. (amended) The recombinant nucleic acid molecule of claim 1 wherein the nucleic acid coding sequence is at least 95% identical to a wild-type *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

8. (amended) An isolated nucleic acid molecule comprising a nucleic acid coding sequence that encodes a plant long chain fatty acid condensing enzyme, wherein:

a) the nucleic acid coding sequence is derived from an *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1; or

b) the plant long chain fatty acid condensing enzyme catalyses the condensation of malonyl-CoA with a C16, C18, C20 or C22 acyl-CoA, wherein the plant very long chain fatty acid condensing enzyme has an amino acid sequence that is at least 70% identical to an *Arabidopsis KCS2* amino acid sequence when optimally aligned; or

c) the nucleic acid coding sequence hybridizes under stringent conditions to a complement of the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1; or

d) the nucleic acid coding sequence is at least 70% identical to the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

9. (amended) The isolated nucleic acid molecule of claim 8, wherein the nucleic acid coding sequence is derived from the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1.

11. (amended) The isolated nucleic acid molecule of claim 8, wherein the nucleic acid coding sequence hybridizes under stringent conditions to a complement of the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1.

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12. (amended) The isolated nucleic acid molecule of claim 8, wherein the nucleic acid coding sequence is at least 70% identical to the *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

13. (amended) The isolated nucleic acid molecule of claim 8, wherein the nucleic acid coding sequence is at least 90% identical to a wild-type *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

14. (amended) The isolated nucleic acid molecule of claim 8, wherein the nucleic acid coding sequence is at least 95% identical to a wild-type *Arabidopsis KCS2* coding sequence shown beginning at position 1046 of SEQ ID NO: 1 when optimally aligned.

31. (amended) A progeny plant produced by sexual or asexual propagation of the transgenic plant produced by the method of claim 30, and which comprises the isolated nucleic acid molecule.